DATA SHEET

Enterprise-Class 3Com® Wireless LAN Access Points 7250/8250/8500/8750

Key Benefits

Full Standards Support

With 3Com®, the freedom of wireless networking includes the freedom of choice. The 3Com Wireless LAN Access Points 8250, 8500, and 8750 offer a dual-mode architecture that supports 802.11-standard 11a, 11b, and 11g wireless users on a single device. The 3Com Wireless LAN Access Point 7250 features a single 11g radio design that provides real value with advanced enterprise features at an economical price.

Modular and Upgradeable

3Com Wireless LAN Access Points 8250/8500/8750 were designed from the ground up as a modular, upgradeable platform for configuration flexibility and investment protection. They offer the flexibility to mix and match radio bands to meet different coverage and bandwidth needs within the same area. With easy-to-install Mini PCI upgrade kits, you can choose to support two different radio modes now, or choose one radio mode and upgrade or add another mode as your needs grow.

Tough Security

3Com delivers one of the most robust suites of standards-based security on the market today on all of its enterprise-class access points. To protect the wireless LAN, 3Com supports Wireless Equivalent Privacy (WEP) RC4 40/ 64-bit, 128-bit and 154-bit shared-key encryption. 3Com strengthens this basic security mechanism with additional security features, including local MAC authentication, Dynamic Security Link (DSL) session encryption, 802.1x RADIUS server authentication, and Temporal Key Integrity Protocol (TKIP) and Wireless Protected Access (WPA) Extensible Authentication Protocol (EAP) user authentication. Your wireless link receives the highest available protection with WPA Advanced Encryption Service (AES) 256-bit encryption.

Performance and Reliability

3Com wireless access point performance features ensure reliable and seamless connections for users wherever they roam. Clear Channel Select automatically finds the least loaded channel for interference-free communication. Auto network connect and dynamic rate shifting keep users connected through a wide variety of conditions by changing to the optimum connection speed as they move through the network.

Manageability

3Com offers a wide range of standards-based management support, from SNMP to 3Com Network Supervisor (3NS) and HP OpenView for seamless integration with your wired network. Wireless Infrastructure Device Manager and Wireless LAN Device Discovery tools let you configure parameters, run diagnostics, and monitor performance from anywhere on the network using an embedded web server browser. You can also replicate wireless device configurations from one access point to another using the save and load feature to simplify and reduce network administration.

Power over Ethernet (PoE) Flexibility

PoE support makes it easier than ever to overcome installation problems with difficult-to-wire or hard-to-reach locations. The same Category 5 cable that connects the access point to the wired network also provides its power, so AC power outlet locations are no longer an issue. You can source power from a 802.3af-compliant PoE switch or with an included power injector or adapter.*

* 802.3af-compliant power injector included with the AP 8250/8500/8750; the AP 7250 ships with an AC power adapter.

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The simple, secure way to network without wires

Feature	Benefit
Powerful	
High-speed and wide coverage	11g radio supports speeds up to 54 Mbps at distances up to 100 meters (328 feet); 11a radio supports speeds up to 54 Mbps at distances up to 50 meters (164 feet). (11a not supported by the Access Point 7250.)
11a Turbo mode	Provides even higher throughput capability, up to 108 Mbps.
User support	Each access point supports up to 253 simultaneous users, allowing plenty of room for growth.
Secure	
40/64- and 128-/154-bit WEP and WPA 256-bit AES encryption	Basic and advanced encryption protect the privacy of data transmitted over the wireless LAN.
Dynamic security link (DSL)	Automatically assigns user-specific 128-bit encryption keys for wireless sessions.
Dynamic session key management and TKIP	Dynamic key assignment improves security and simplifies deployment.
802.1x RADIUS server authentication	Helps ensure that only authorized users can access your network and centralizes authorization of wireless users across your network.
Access control lists	Control access to network resources.
Client-to-client and uplink filtering	Block direct communications between other wireless users associated to the access points.
MAC address filtering	Allows only specific WLAN cards to connect to the access point.
Dynamic VLAN assignment	Used with RADIUS authentication, assigns users to an appropriate VLAN, further protecting access to network resources.
Compatible and Flexible	
Modular, dual-mode radio architecture (8250/8500/8750)	Interchangeable radio slots support more wireless clients within the same coverage area with optional Mini PCI upgrade kits.
Simultaneous standard support (8250/8500/8750)	802.11a and 802.11g in same access point provide concurrent wireless connectivity for all 802.11 a/b/g clients.
802.11g-802.11b backward-compatibility	11g radio supports both11g and 11b wireless users, preserving existing wireless investments.
Wi-Fi certification	Ensures interoperability with Wi-Fi certified products from other vendors.
Power over Ethernet (PoE)	Solves hard-to-wire location problems; Ethernet cable supplies connectivity and electrical power. 802.3af-compliant power injector included with the Access Point 8250, 8500, and 8750; the AP 7250 ships with an AC power adapter.
Easy to Use Management	
Simple installation	No need to drill holes or run Ethernet cabling to set up your network.
Dynamic Host Configuration Protocol (DHCP) support	Provides DHCP passthrough to simplify management.
Wireless Infrastructure Device Manager and Wireless LAN Device Discovery tools	Automatically identify and configure network devices, run diagnostics, and monitor performance.
Web-based administration	Works with any web browser that supports HTML and Java Script; lets you configure and manage network devices from anywhere.
Save and load feature	Copies settings to wireless devices on the network, simplifying and speeding LAN setup.
3NS support	Powerful yet simple-to-use network management designed for small businesses.
SNMP, HP OpenView support	Enables remote, central management using popular third-party network management programs.
RADIUS accounting support	Enables billing by usage for hotspot and other commercial deployments.
Site survey tool	Works with 3Com enterprise wireless PC Cards to help you optimize the location and number of access points for your site.
Reliable	
Dynamic rate shifting and auto network connect	Automatically moves between connection speeds in response to physical conditions and RF interference.
Clear Channel Select	Selects the channel with the least traffic for problem-free connections.

*Range depends on physical conditions, building construction, electrical devices in the area, and other environmental factors.

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Specifications

Security

Authentication:
802.11x Remote Access Dial-In Service (RADIUS) server-based MAC address authentication. WPA TKIP authentication using EAP-MD5, EAP-TLS, EAP-TTLS, and PEAP protocols.

Encryption:
Advanced WPA 256-bit encryption (AES), 40/64-bit, 128-bit and 154-bit, WEP shared key encryption, 3Com proprietary 128-bit Dynamic Security Link encryption, Dynamic session key management

Access Control:
MAC address filtering, sever access control lists.

Performance

253 simultaneous user support
Dynamic rate shifting
Auto network connect
Clear channel select
802.11a turbo mode (not supported by AP 7250)
DHCP passthrough

Network Management

3NS network management utility

Site Survey tool

Wireless Infrastructure Device Manager and Wireless LAN Discovery Tool

Embedded web server

SNMP v1- or SNMP v3-compliant management

HP OpenView support

RADIUS accounting

Standards Conformance

Wi-Fi certified, WEP, WPA

IEEE 802.11b, IEEE 802.11a, IEEE 802.11g

IEEE 802.3af (PoE)

CSMA/CA

Radio Operation

Data Rates:
802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps (not supported by AP 7250)

802.11g: 54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, 1 Mbps

Frequency Band:
802.11a: 5 GHz; 802.11g: 2.4 GHz

Wireless Medium:
802.11a: OFDM, 802.11g: OFDM and DSSS (with Barker coding and CCK for backward compatibility with 802.11b)

Operating Channels:
802.11a: 36-64 (8 non-overlapping total), 802.11g: 1-11 (U.S. and Canada), 1-13 (Worldwide; channel availability depends on local regulations)

Operating Range (indoor):
802.11a: up to 50 meters (164 feet) transmit and receive
802.11g: up to 100 meters (328 feet) transmit and receive

Power of Radio:
802.11a: 100mW

802.11g: 100mW

Transmit Power Settings:
802.11a: 17 dBm low band depending on bitrate, 20dBm midband depending on the bitrate;
802.11g: 17 dBm depending on bitrate

Receive Sensitivity: Access Point 8250/8500/8750
802.11a:
6 Mbps: -84 dBm, +/- 2 dBm (depending on band)

12 Mbps: -82 dBm

36 Mbps: -73 dBm

54 Mbps: -66 dBm

802.11g:
1 Mbps: -96 dBm

2 Mbps: -94 dBm

5.5 Mbps: -92dBm

11 Mbps: -88 dBm

12 Mbps: - 86dBm

24 Mbps: -85 dBm

36 Mbps: - 80dBm

54 Mbps: - 73 dBm

Receive Sensitivity: Access Point 7250
802.11g:
1 Mbps: -91 dBm

2 Mbps: -89 dBm

5.5 Mbps: -87 dBm

11 Mbps: -83 dBm

12 Mbps: -81 dBm

24 Mbps: -80 dBm

36 Mbps: -75 dBm

54 Mbps: -68 dBm

Antenna Options:
802.11a: Integrated antenna only; 802.11g: External antenna options are available, see "Accessories" under Ordering Information for detail

Safety, RF, and Electromagnetic Conformance

Safety:
IEC & EN 60950, UL / CSA 60950, NOM 019

RF:
FCC Part 15.247, Part 15.205, Part 15.209, & Part 15.407, RSS-210, EN 300 328-2, EN 301 893, TELEC RCR STD 33 & T66

EMC:
EN 301 489-17, EN 301 489-01

Environmental Operating Ranges

Temperature: 0° C to 40° C (32° F to 104° F); with external antennas 15° C to 40° C (59° F to 105° F)

Humidity: 5-95% non-condensing

Physical Dimensions

Access Point 8250/8500/8750
Height: 32 cm (12.5 in)

Width: 20 cm (8.1 in)

Depth: 7 cm (2.8 in

Access Point 7250
Height: 20.5 cm (8 in)

Width: 28 cm (11 in)

Depth: 8 cm (3 in)

Package Contents

Access point

Inline PoE power injector with local power cord (Access Point 8250/8500/8750)

AC power adapter (Access Point 7250)

CD ROM with management utilities and site survey tool

10-meter (33-foot) Category 5 Ethernet cable

Mounting bracket and hardware

User guide

Warranty

One-year hardware warranty, 90-day software warranty

Ordering Information

3Com Wireless LAN Access Points are available in the U.S./Canada, Latin America, Asia-Pacific countries, and Europe.

Access Points

Product Name	Order Number	Product Description
3Com Wireless LAN Access Point 7250	3CRWE725075A	Ships with one 802.11g radio
3Com Wireless LAN Access Point 8250	3CRWE825075A	Ships with one 802.11g radio and one open radio slot
3Com Wireless LAN Access Point 8500	3CRWE850075A	Ships with one 802.11a radio and one open radio slot
3Com Wireless LAN Access Point 8750	3CRWE875075A	Ships with one 802.11a radio and one 802.11g radio

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Upgrade Kits

Product Name	Order Number	Products Supported
3Com 802.11a Wireless LAN Access Point Upgrade Kit	3CRWEAMOD75A	• Upgrades the earlier model Access Point 8200 to an Access Point 8700. Add the 11a module and update the firmware with the 11a module CD-ROM. • Upgrades the Access Point 8250 to an Access Point 8750. Add the 11a module and update the firmware using the 11a module CD-ROM.
3Com 802.11g Wireless LAN Access Point Upgrade Kit	3CRWEGMOD75A	• Upgrades the earlier model Access Point 8200 to an Access Point 8250. Replace the 11b module with the 11g module and update the firmware with the 11g module CD-ROM. • Upgrades the earlier model Access Point 8700 to an Access Point 8750. Replace the 11b module with the 11g module and update the firmware with the 11g module CD-ROM. • Upgrades the Access Point 8500 to an Access Point 8750. Add the 11g module and upgrade the firmware using the 11g module CD-ROM.

Accessories

Important:

- Due to possible RF emissions outside of the allowed spectrum, the 3Com® Wireless LAN Access Point 8250 (3CRWE825075A), Wireless LAN Access Point 8750 (3CRWE875075A) and 802.11g Wireless LAN Access Point Upgrade Kit (3CRWEGMOD75A) may only be used with external antennas under the following conditions:

In the United States, Canada, and other countries governed by FCC guidelines, external antennas can only be used in an access point operating temperature range of 15° C - 40° C (59° F - 104° F). In these countries only external antennas with a gain of up to 8 dBi may be used. This includes the antennas listed in the table below.

In the European Community, you may use the antennas listed in the table as well as the 3Com 13 dBi Sector-Panel Antenna (3CWE495). The temperature restriction does not apply.

- If the access point is used with an external antenna you must also purchase an antenna cable. For maximum efficiency, use the shortest antenna cable possible. Antenna cables induce signal loss, which will limit the radiated power output and range of the access point. Of the options available, we recommend the 3Com 6-Foot Antenna Cable (3CWE480).

Product Name	Order Number	Products Supported
3Com SuperStack® 3Switch 4400 PWR	3C17205-US	3Com Wireless LAN Access Point 7250, 8250, 8500, and 8750
3Com Network Jack Multiport Power over Ethernet Midspan Solution	3CNJPSE24	3Com Wireless LAN Access Point 7250, 8250, 8500, and 8750
3Com Power over Ethernet Single-Port Midspan Solution	3CNJPSE	3Com Wireless LAN Access Point 7250, 8250, 8500, and 8750
3Com 4.0 dBi Omnidirectional Antenna	3CWE490	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 8.0 dBi Omnidirectional Antenna	3CWE491	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 2.5 dBi Ceiling Mount Omnidirectional Antenna	3CWE492	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 4.0 dBi Hallway Bidirectional Antenna	3CWE497	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 8.0 dBi Sector-Panel Antenna	3CWE498	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 6-Foot Antenna Cable	3CWE480	3Com Wireless LAN Access Point 7250, 8250, and 8750
3Com 20-Foot Antenna Cable	3CWE481	3Com Wireless LAN Access Point 7250, 8250, and 8750

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